ABSTRACT

Described herein is a technology for semantically classifying areas of an image (and/or the images themselves) as one of a number of multiple discriminating categories. More particularly, the technology employs one or more hierarchical, probabilistic techniques for performing such classification. Such technology is particularly useful in fields of image classification and image retrieval. The architecture of such technology employs multiple hierarchical layers. The architecture is based on modeling class likelihoods at each of such layers separately and then combining these to form an overall estimate of the posterior, conditioned on the data. The task of combining the estimated class likelihoods at each layer is made more efficient by assuming statistical independence between layers. This abstract itself is not intended to limit the scope of this patent. The scope of the present invention is pointed out in the appending claims.